



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,249	07/29/2003	Weijing Chen	P23830	5443
7055 7590 02/25/2008 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			EXAMINER IBRAHIM, MOHAMED	
			ART UNIT 2144	PAPER NUMBER
			NOTIFICATION DATE 02/25/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

44

<b>Office Action Summary</b>	Application No. 10/628,249	Applicant(s) CHEN ET AL.	
	Examiner MOHAMED IBRAHIM	Art Unit 2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 November 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

*ms*

***Response to Amendment***

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asano et al (Asano), U. S. Application Publication No. 2003/0185236 in view of Donahue et al. (Donahue), U. S. Patent No. 7020720.

Regarding claim 1, Asano discloses a method for routing data packets from a subscriber device, over a broadband access link, through a first Internet protocol (IP) version 6 (IPv6) network to a second IP network, the first and second IP networks interfacing through a second IP network edge device (see e.g. fig. 16 and paragraph [0040-0043]).

Although Asano discloses the invention substantially as claimed, it does not explicitly disclose providing a first IP address to the subscriber device; the first IP address associated with the first IP network; providing a second IP address to the subscriber device based on a request routed through the first IP network from the subscriber device, the second IP address being associated with the second IP network; and addressing data packets from the subscriber's device with the first IP address and the second IP address.

Art Unit: 2144

Donahue teaches DSL system in which in which a first IP address is received from an Internet Service Provider, the first IP address is then allotted to a gateway that couples the public network with a private network. First IP address is assigned to a Network Address Translation service on the gateway and second IP address is then assigned to a host computer in a private network, subsequently the second IP address is transmitted to the host computer which enables the host computer to communicate and receive packets from the public network through the gateway (see e.g. col. 3 lines 32-54 and col.5 line 30-col. 6 line 35). At the time of the invention it would have been obvious to a person of ordinary skills in the art to combine the teaching of Donahue with that of Asano. Motivation for doing to facilitate the communication and routing of packets from one network to another thus permitting multiple network interconnectivity.

Regarding claim 2, although Asano discloses the invention substantially as claimed, it does not explicitly disclose wherein the request comprises a dynamic host configuration protocol (DHCP) request.

Donahue teaches DHCP server that is responsible for responding to host's request by returning IP address to the host (see e.g. col. 6 line 64-col. 7 line 3). At the time of the invention it would have been obvious to a person of ordinary skills in the art to combine the teachings of Donahue with that of Asano. Motivation for doing so would have to automate the assigning of IP address to requesting hosts.

Regarding claim 3, Asano-Donahue teaches wherein the subscriber device comprises

an IP version 4 (IPv4) device, the method further comprising: encapsulating the DHCP request in an IPv6 packet for routing the DHCP request through the first IP network (see e.g. Fig. 1 and paragraph [0059]).

Regarding claim 4, Asano-Donahue teaches wherein the subscriber device comprises an IPv6 device, the method further comprising: modifying the DHCP request to include a two-hop IPv6 routing header for routing the DHCP request through the first IP network (see e.g. paragraphs [0050]-[0051]).

Regarding claim 5, Asano-Donahue teaches wherein the two-hop IPv6 routing header comprises an IP address of the edge device as a first hop address and an IP broadcast address of the DHCP request as a second hop address, the IP address of the edge device being associated with the first IP network (see e.g. paragraph [0046]).

Regarding claim 6, although Asano discloses the invention substantially as claimed, it does not explicitly disclose wherein providing the second IP address to the subscriber device is further based on a DHCP response routed through the first IP network from the edge device to the subscriber device.

Donahue teaches providing the second IP address to the subscriber device is further based on a DHCP response routed through the first IP network from the edge device to the subscriber device (see e.g. col. 5 lines 30-51, 57-col. 6 line 6). At the time of the invention it would have been obvious to person of ordinary skills in the art to combine

the teachings of Donahue with that of Asano. Motivation for doing so would have been Motivation for doing to facilitate the communication and routing of packets from one network to another thus permitting multiple network interconnectivity.

Regarding claim 7, although Asano discloses the invention substantially as claimed, it does not explicit disclose wherein the two-hop IPv6 routing header of the DHCP response comprises the first IP address of the subscriber device as a first hop address and the second IP address of the subscriber devices as a second hop address.

Donahue teaches wherein the two-hop IPv6 routing header of the DHCP response comprises the first IP address of the subscriber device as a first hop address and the second IP address of the subscriber devices as a second hop address (see e.g. col. 2 line 55-col. 3 line 13). At the time of the invention it would have been obvious to a person of ordinary skills in the art to combine the teachings of Donahue with that of Asano. The same motivation utilized in the combination of claim 1, equally applies as well to claim 7.

Regarding claim 8, Asano discloses a method for addressing data packets of a subscriber for transmission from an originating device over a broadband access link through an Internet protocol (IP) network to a destination network (see e.g. paragraph [0052]-[0059]; packet transmission from Ipv6 terminal to Ipv4 terminal).

Although Asano discloses the invention substantially as claimed, it does not explicitly disclose allocating a first subscriber IP address to the originating device, the first

Art Unit: 2144

subscriber IP address being associated with the IP network; receiving a dynamic host configuration protocol (DHCP) request from the originating device, the DHCP request being associated with the first subscriber IP address; sending the DHCP request through the IP network to a destination device in the destination network using an IP network address of the destination device, the destination device forwarding the DHCP request to a DHCP server; receiving a DHCP response from the DHCP server, through the destination device, the DHCP response including a second subscriber IP address from the DHCP server, the second subscriber IP address being associated with the destination network; and sending the DHCP response through the IP network to the originating device using the first subscriber IP address, enabling the originating device to obtain the second subscriber IP address from the DHCP response and address subsequent data packets using the first subscriber IP address and the second subscriber IP address.

Donahue teaches allocation of IP address to hosts in private network by utilizing Dynamic Host Configuration Protocol server wherein a user transmits IP address request through the gateway that in turn forwards the request to DHCP/NAT server. The DHCP server looks into the packet to identify the source and destination hosts. Thereafter, the first IP address is return to the originating host as well as IP address of the second host. Thus permitting packet communication between a source device with the desired destination device possibly located in two different networks (see e.g. col. 5 lines 30-64, col. 6 lines 36-50 and line 64-col. 7 line 41). At the time of the invention it would have been obvious to a person of ordinary skills in the art to combine the

Art Unit: 2144

teaching of Donahue with that of Asano. Motivation for doing to facilitate the communication and routing of packets from one network to another thus permitting multiple network interconnectivity.

Regarding claim 9, Asano-Donahue teaches wherein the IP network comprises an IP-version 6 (IPv6) network, and in which the first subscriber IP address and the IP network address of the destination device comprise IPv6 addresses (see e.g. paragraph [0046] and [0049]).

Regarding claim 10, the limitation of this claimed has already been addressed (see claim 3 above).

Regarding claim 11, the limitations of this claim have already been addressed (see claim 6 above).

Regarding claim 12, the limitations of this claim have already been addressed (see claim 8 above).

Regarding claim 13, the limitations of this claim have already been addressed (see claim 7 above).

Regarding claim 14, the limitations of this claim have already been addressed (see



claim 5 above).

Regarding claim 15, the limitations of this claim have already been addressed (see claim 4 above).

Regarding claim 16, Asano-Donahue teaches wherein allocating the first subscriber IP address comprises matching a previously allocated network IPv6 address of the subscriber (see e.g. paragraph [0049]).

Regarding claim 17, the limitations of this claim have already been addressed (see claims 1-3, above).

Claim 18 list all the same elements of claim 8, but in system form rather than method form. Therefore, the supporting rationale of the rejection to claim 8 applies equally as well to claim 18. The same motivation utilized in the combination of claim 8, equally applies as well to claim 18.

Regarding claims 19-25, the limitations of these claims correspond to the already addressed limitation of claim 9-15 thus the supporting rationale of the rejections to claims 9-15 applies equally as well to claims 19-25.

Regarding claim 26, although Asano discloses the invention substantially as claimed, it

Art Unit: 2144

does not explicitly disclose wherein the second IP network comprises one of an Internet service provider network and a private network.

Donahue teaches wherein the second IP network comprises one of an Internet service provider network and a private network (see e.g. Fig. 3 and col. 4 line 64-col. 5 line 29).

At the time of the invention it would have been obvious to a person of ordinary skills in the art to combine the teaching of Donahue with that of Asano. Motivation for doing so would have been to allowing privately exchange of information among employee of a company while giving the ability to communicate out side client by utilizing the public Internet.

### ***Response to Arguments***

3. Applicant's arguments filed 11/27/2007 have been fully considered but they are not persuasive.

Applicant argues in substance,

A) Neither ASANO nor DONAHUE teach forwarding a data packet addressed with both the first IP address and the second IP address, from the subscriber device.

In response to Applicant's argument,

A) First of all, claims are given their broadest reasonable interpretation in light of the specification. As such the claimed states a data packet addressed with both first IP address and the second IP address, from the subscriber device. Given the broadest

reasonable interpretation, all that is required in order to meet the scope of the claim limitation to have a data packet that has both source IP address and destination IP address and both references clearly disclose packets with the meet the scope to the claimed limitation as currently recited. For instance, figure 5 of DONAHUE shows a host transmitting request packet routed to a public network. The transmitted packet includes both source IP address and destination IP address coming from the host (subscriber) and is received by the gateway which assigns public IP address and transmits it. Therefore, clearly DONAHUE teaches the scope of the claim limitation as currently claimed. Similarly, figure 4 of ASANO shows the content of a packet transmitted from IPv6 network which clearly shows both source IP address and destination IP address. Therefore, ASANO does meet the scope of the claim limitation as currently recited.

Applicant employs broad language, which includes the use of word, and phrases, which have broad meanings in the art. In addition, Applicant has not argued any narrower interpretation of the claim language, nor amended the claims significantly enough to construe a narrower meaning to the limitations. As the claims breadth allows multiple interpretations and meanings, which are broader than Applicant's disclosure, the Examiner is forced to interpret the claim limitations as broadly and as reasonably possible, in determining patentability of the disclosed invention. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir.1993):

Failure for Applicant to significantly narrow definition/scope of the claims and supply arguments commensurate in scope with the claims implies the Applicant intends

broad interpretation be given to the claims. The Examiner has interpreted the claims with scope parallel to the Applicant in the response, and reiterates the need for the Applicant to more clearly and distinctly define the claimed invention.

### ***Prior Art of Record***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please refer to form PTO-892 (Notice of Reference Cited) for a list of relevant prior art.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMED IBRAHIM whose telephone number is (571)270-1132. The examiner can normally be reached on Monday through Friday from 7:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn, Jr. can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MI/ *me*

  
WILLIAM VAUGHN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100